145661

National Bridge Inspection Standards

FHWA Docket No. FHWA-2001-8954

Comments by
Naval Facilities Engineering Service Center

Inspection Procedures

What impact will changing the underwater inspection intervals have on public authorities complying with this as an NBIS requirement?

The Navy would like to see underwater inspections performed on a 4-year cycle to coincide with the 2-year inspection cycle of topside inspection. Every other topside inspection therefore would be combined with an underwater inspection with considerable savings in mobilization costs and increased cfficiency. The concept that FHWA is proposing of increasing the dive cycle to greater than the current five year cycle would be feasible for certain types of bridges. We would be cautious to recommend a cycle of greater than 6-years for any kind of structure. The type of structures that would qualify for this extended cycle would need to be clearly defined by the FHWA

What, if any, would be the impact on public authorities complying with evaluation of scour at bridges criteria within the NBIS regulation?

Current Navy bridge inspection policy would not be affected if FHWA were to provide guidance for scour in the NBIS regulations and incorporate FHWA Technical Advisory T5140.23 into the standards. We feel it would be good policy for FHWA to provide guidance on what public authorities should do after major storm events.

Qualification of Personnel

Should the individual in charge of the inspection and reporting, who is a PE, be required to have the same training as bridge inspectors and have additional experience in bridge inspection?

Bridge inspection is a very specialized field not covered in the typical curriculum of an engineer's professional and academic training. The PE in charge of bridge inspection should be required to have prior bridge inspection field experience as well as the FHWA 2-week training course. The length of field experience could be something of the order of one year or a corresponding amount of field hours. Whatever the requirement, it should be clearly defined by the NBIS regulation.

Should the NBIS regulation be more specific as to the discipline of the professional engineer responsible for these bridge inspections and what impact would this change have on public authorities complying with this?

The PE in charge of the bridge inspection program should have a structural / civil background. This does not necessarily mean that the engineering degree or professional registration be in structures. For a management position a roadway or civil background would be adequate as long as the individual has the required bridge field experience, which the FHWA should more clearly define.

What impact would requiring certification training in proportion to the complexity of the bridge structure being inspected, and making this a part of a requirement for inspectors under the national bridge inspection program have on public authorities complying with this as an NBIS requirement?

Complex bridges require a better understanding of bridge mechanics and materials. Additional FHWA certification in areas such as segmental and cable stay bridges should be implemented to assure qualified and trained personnel are inspecting these types of structures.

Should those performing underwater inspections be qualified licensed professional engineers?

NFESC supports the idea that a PE diver performs underwater bridge inspections. The PE diver should have structural background preferably with some substructure design experience. The PE diver is better able to access what deficiencies are significant and which may require further investigation.